

What is claimed is:

1        1. An apparatus for supporting an object to be fabricated, wherein  
2        the object is supported spacially apart from a supporting surface of a  
3        chuck comprising:

4                a plurality of sliding pockets sunken into the supporting surface of the  
5        chuck; and

6                a plurality of sliding pads respectively floating-coupled in the sliding  
7        pockets such that the sliding pads are spaced apart from the supporting  
8        surface in order to provide adaptive support to the object to be fabricated to  
9        compensate for the object's expansion and contraction.

1        2. The apparatus for supporting an object to be fabricated of claim 1,  
2        wherein each of the sliding pockets includes a magnetic pocket body having  
3        an internal space that confines a part of the sliding pad to prevent the sliding  
4        pad from escaping, and a magnetic base cover spaced apart from a lower  
5        part of the sliding pad for enabling the sliding pad to be connected to or  
6        disconnected from the pocket body in one direction.

1        3. The apparatus for supporting an object to be fabricated of claim 2,  
2        wherein the sliding pad includes a sliding body with parts having a magnetic  
3        polarity identical to the magnetic polarity of corresponding parts of the  
4        pocket body and base cover to allow the sliding pad to move freely in the  
5        internal space of the pocket body with no contact to the sliding pocket, and a  
6        supporting member installed at a part of an upper surface of the sliding body.

1                   4. The apparatus for supporting an object to be fabricated of claim 3,  
2                   wherein the corresponding parts of the sliding pocket and sliding body are  
3                   made of the same magnetic substance.

1                   5. The apparatus for supporting an object to be fabricated of claim 3,  
2                   wherein the sliding pad is in a reverse T shape.

1               6. The apparatus for supporting an object to be fabricated of claim 3,  
2       wherein the lower part of the pocket body and the base cover are fixed at a  
3       predetermined depth into the supporting surface of the chuck.

1                   7. The apparatus for supporting an object to be fabricated of claim 3,  
2                   wherein the supporting chuck is an electrostatic chuck for adsorbing an  
3                   object to be fabricated through the supporting member by electrostatic force.

1                   8. The apparatus for supporting an object to be fabricated of claim 3,  
2                   wherein the object to be fabricated is a semiconductor wafer used for  
3                   manufacturing a plurality of semiconductor devices simultaneously.

1                   9. A method for fabricating an apparatus for supporting an object to  
2 be fabricated, wherein the object is supported spacially apart from a  
3 supporting surface of a chuck comprising:

4 sinking a plurality of sliding pockets into the supporting surface of the  
5 chuck; and

6 forming a plurality of sliding pads respectively floating-coupled in the  
7 sliding pockets such that the sliding pads are spaced apart from the

8        supporting surface of the chuck in order to provide adaptive support to the  
9        object to be fabricated to compensate for the object's expansion and  
10      contraction.

1            10. The method of claim 9, further comprising:  
2                forming a plurality of accommodation grooves at an upper part of a  
3                body of the  
4                chuck for accommodating the sliding pocket; and  
5                sequentially pressing and inserting into the grooves the base cover of  
6                the sliding pocket and the pocket body having the sliding pad  
7                floating-coupled inside.

1            11. The method of claim 10, wherein the body of the chuck is made  
2                of a material having a thermal expansion coefficient identical or similar to  
3                that of the electrostatic chuck.